

## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,781 07/03/2001		07/03/2001	Yoshiaki Komma	10873.759US01	1848
23552	7590	07/26/2004		EXAMINER	
MERCHAI P.O. BOX 2		OULD PC	TRAN, THANG V		
		N 55402-0903	ART UNIT	PAPER NUMBER	
	•			2653	11
•			DATE MAILED: 07/26/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicati	on No.	Applicant(s)				
		09/776,7	06	CHEONG ET AL.				
	Office Action Summary	Examine		Art Unit				
		Thang Tr		2653				
 Period for	The MAILING DATE of this communi Reply	ication appears on the	e cover sheet with the c	correspondence address				
THE MA - Extension after SI - If the pe - If NO pe - Failure I Any rep	RTENED STATUTORY PERIOD FOR ALLING DATE OF THIS COMMUNIONS of time may be available under the provisions (6) MONTHS from the mailing date of this communication for reply specified above is less than thirty (30 period for reply is specified above, the maximum state or reply within the set or extended period for reply by received by the Office later than three months a patent term adjustment. See 37 CFR 1.704(b).	CATION. of 37 CFR 1.136(a). In no evilunication. O) days, a reply within the state attrony period will apply and will, by statute, cause the app	ent, however, may a reply be tinutory minimum of thirty (30) day ill expire SIX (6) MONTHS from the state of	mely filed ys will be considered timely. the mailing date of this communication. ED (35 U.S.C. § 133).				
Status								
- 1)⊠ R	esponsive to communication(s) file	d on 07 May 2004						
		2b)⊠ This action is r	on-final.	•				
′=	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.								
Dispositio	n of Claims		•					
4a 5)⊠ C 6)⊠ C 7)⊠ C	laim(s) <u>1-32</u> is/are pending in the an Of the above claim(s) is/an is/a	re withdrawn from co d. sted. sted to.		·.				
Application	n Papers							
9)∐ Tr	ne specification is objected to by the	e Examiner.						
10)[] Th	D) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.							
Α	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
R								
11) 🗌 Th	ne oath or declaration is objected to	by the Examiner. No	ote the attached Office	Action or form PTO-152.				
Priority un	der 35 U.S.C. § 119							
a) <u>□</u> 1. 2.	cknowledgment is made of a claim  All b) Some * c) None of:  Certified copies of the priority  Copies of the certified copies of application from the Internation	documents have bee documents have bee of the priority docume	en received. en received in Applicat ents have been receive	ion No				
* See	e the attached detailed Office action	n for a list of the cert	fied copies not receive	∍d.				
Attachment(s			_					
	of References Cited (PTO-892)	TO 049)	4) Interview Summary Paper No(s)/Mail D					
3) 🔲 Informa	of Draftsperson's Patent Drawing Review (P tion Disclosure Statement(s) (PTO-1449 or lo(s)/Mail Date	•		Patent Application (PTO-152)				

Application/Control Number: 09/776,706

Art Unit: 2653

The communication dated 05/07/04 has been considered with the following results:

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Park et al (US 5,793,407).

Park et al., according to Figs. 3 and 4, show an optical apparatus comprising: a slider (6); an actuator assembly (7,8) pivotable in a radial direction of an optical disk, supporting the slider (6); and an optical pickup (14) for focusing a light beam from a light source to form a light spot on the recording surface of the optical disk, where the optical pickup including a light source (1), an optical path changing unit (15); an objective lens (see column 3, lines 58-67), a photodetector (17), and at least an optical fiber (16) connecting the light source and the optical path changing unit (15) thereby the optical loss between the light source and the optical path is suppressed due to the use of the optical fiber, as recited in claim 7.

3. Claims 7, 12, 19 and 26 are rejected under 35 U.S.C. 102(5) as being anticipated by Jordache et al (US 6,288,985).

Application/Control Number: 09/776,706

Art Unit: 2653

Jordache et al., according to Figs. 1-22, show an optical apparatus (see Figs. 1, 4-6 as example) comprising: a slider (292); an actuator assembly (see Fig. 1, 21 or 22 as example) pivotable in a radial direction of an optical disk, supporting the slider; and an optical pickup (see 280 in Fig. 4) for focusing a light beam from a light source to form a light spot on the recording surface of the optical disk, where the optical pickup including a light source (282 in Fig. 4), an optical path changing unit (376 in Fig. 6); an objective lens (378 in Fig. 6), a photodetector (302 in Fig. 4), and at least an optical fiber (209) connecting the light source and the optical path changing unit (376) thereby the optical loss between the light source and the optical path is inherently suppressed due to the use of the optical fiber, as recited in claim 7.

Regarding claim 12, see Figs. 1 and 18 which show an optical system comprising: an actuator arm (716) pivotable in a radial direction of an optical disk; a load beam (746, 722) support by the actuator arm (716) and having a first end movable in the radial direction (751) relative to a movement of the arm; and a slide element (724) having an objective lens (725) attached to the load beam, and the slide element movable over a recording surface of the optical disk, as recited in claim 12.

Regarding claim 19, see an optical pickup (108 in Fig. 1 mounted on an actuator arm) comprising (see Fig. 4 for details) a light source (282); photodetector (302); an optical path changing unit (376 in Fig. 6); and an optical fiber (296) connecting the light source and the optical path changing unit (376) as recited in claim 19.

Regarding claim 26, see Fig. 1 and 6 comprising: an actuator assembly (see Fig. 1) pivotable in a radial direction of an optical disk for supporting a slider (100 or 292); and an optical pickup (see 108 in Fig. 1 mounted on an actuator arm) comprising (see Fig. 4 for details)

Page 4

Application/Control Number: 09/776,706

Art Unit: 2653

a light source (282); photodetector (302); an optical path changing unit (376 in Fig. 6); and an optical fiber (296) connecting the light source and the optical path changing unit (376) as recited in claim 26.

4. Claims 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukakusa (US 5,615,203).

Fukakusa, according to Figs. 12-13 and 20, shows an optical system comprising: an all features of the instant claimed invention as interpreted

Regarding claim 12, see Figs. 10-13 and 20 which show an optical system (see Fig. 12 as example) comprising: an actuator arm (90, 66) pivotable in a radial direction of an optical disk (see Fig. 20 for details of the actuator arm); a load beam (80) support by the actuator arm (90,66) and having a first end movable in the radial direction relative to a movement of the arm (90, 66); and a slide element (30) having an objective lens (20) and attached to the load beam (80), and the slide element movable over a recording surface of the optical disk, as recited in claim 12.

Regarding claims 13 and 14, see the driving unit including magnet 56 mounted on the end of the actuator (90, 66) and coil 62 mounted on the end of the load beam (80).

Regarding claim 15, see Fig. 12 which shows the load beam (80) having a second end fixed to a second end of the arm (90, 66); and intermediate region located between the first and second end of the load beam is flexible (see spring 87) so as to enable the movement of the first end of the load beam in the radial direction relative to the arm (90,66).

Page 5

Application/Control Number: 09/776,706

Art Unit: 2653

Regarding claim 16, see Fig. 12 which also shows the intermediate region comprising a pair of extensions (this can be either springs 84 or 87) separated by a gap from each other, connecting facing edge of the first and second end of a load arm.

Regarding claims 17 and 18, see the rejection applied to claims 15 and 16 above.

## Allowable Subject Matter

- 5. Claims 8-11 and 20-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 6. Claims 1-6 and 27-32 are allowed.

## Response to Arguments

7. In response Applicant's arguments filed 05/07/04, Applicant 's attention is drawn to Fig. 12 of Fukakusa and its respective disclosure which show that spring (87) interpreted as part of a load beam (or an intermediated region as recited in claim 15) is moveable in a radial direction relative to the arm actuator (90) when tracking operation is performed. The spring 87 must move in the radial direction in order to move an objective lens when tracking operation is performed. The tracking operation cannot be performed if the spring 87 does not move in the radial direction. Accordingly, Fukakusa does teach the use of a load beam moveable in the radial direction.

Also, Applicant should note that Park does teach the use of an optical pickup including a light source, but the light source is not mounted on an arm actuator. However, since claim 7 does not recite where an optical pickup or a light source is mounted, limitation related to

Application/Control Number: 09/776,706

Art Unit: 2653

location or mounted position of the light source cannot read into the claim for the purpose of

avoiding the prior art.

8. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thang V. Tran whose telephone number is (703) 308-1551. The

examiner can normally be reached on Tuesday to Friday, from 7:30AM to 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thang <del>\* Tra</del>n

Primary Examiner

Page 6

Art Unit 2653